WAFER-LEVEL TESTER WITH MAGNET TO TEST LATCHING MICRO-MAGNETIC SWITCHES

ABSTRACT OF THE DISCLOSURE

A method, system, and apparatus for testing one or more micro-magnetic switches on a wafer is described. A magnet is positioned adjacent to a first switch on the wafer. A probe card is positioned adjacent to the first switch. The probe card mounts a first set of probes and a second set of probes. The first set of probes interface with contact areas of a coil associated with the first switch. The second set of probes interface with conductors on the wafer associated with the cantilever of the first switch. A current source is electrically coupled to the first set of probes. The current source activates the coil of the first switch using the first set of probes to switch the cantilever from a first state to a second state. A switch state monitor is electrically coupled to the second set of probes. The switch state monitor determines whether the cantilever of the first switch is in the first state prior to the current source activating the coil of the first switch. The switch state monitor also determines whether the cantilever is in the second state after the current source activates the coil of the first switch. A stepper motor moves the wafer relative to the magnet and probe card to test further switches on the wafer. An inker marks a switch on the wafer that has been determined by the switch state monitor to be defective.

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